

Mapping of single event burnout in power MOSFETs

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Direct heavy ion mapping of single-event burnout (SEB) in power MOSFETs is presented for the first time utilizing the GSI microprobe with Xe and Ar ion beams. The mapping results indicate that the source and the channel of the power MOSFET are the most sensitive areas to SEB. Correlation to charge collection mapping, as well as the difference between the mapping results of the two ion beams are discussed.